WAN Research Projects February 8, 2005

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WAN Research Project – Drivers & Scope

Drivers:

- [Common] Good Internetworking with present & potential partners
 - "I think the network is a crucial component of any grid effort..."

<name intentionally withheld...>

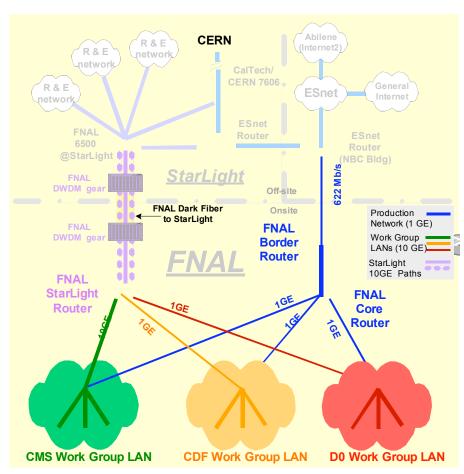
- [CMS] DC06 CMS 20% Data Challenge
- [CMS] DC07 CMS 50% Data Challenge

> Scope:

- Provide the following network infrastructure capabilities:
 - A non-production wide area infrastructure that facilitates Grid R & D efforts
 - A production wide area infrastructure that supports Grid development as part of a production service
 - A local network infrastructure that facilitates use of the R & D and production wide area network infrastructures

WAN Research Project – Infrastructure Status

- > StarLight dark fiber infrastructure in place
 - One 10GE & two 1GE channels
 - Intended usage:
 - WAN research projects
 - Overflow traffic
- > Production WAN traffic infrastructure:
 - Currently limited to 622Mb/s off-site
 - Pursuing upgrade to 10GE
 - Implementation schedule & plans unclear at this time...
- LAN infrastructure:
 - R&D WAN path for Projects requires alternate path from work group LAN
 - CMS 10GE alternate path in place
 - CDF & D0 currently have 1GE paths



Existing & Pending WAN Research Projects

<u>Project</u>	Collaboration	Remote Site	<u>Status</u>	Max B.W.	Type
UKlight - CDF	CDF	UCL	Active	4 Gb/s	periodic
CMS/CERN	CMS	CERN	Active	1-10 Gb/s	sustained
LambdaStation	CMS	CalTech/UCSD	Start 3/2005	1-10 Gb/s	sustained
Toronto HEP	CDF	U. Toronto	Pending	1-10 Gb/s	periodic
Vanderbilt	OSG(?)	Vanderbilt	Pending	1-10Gb/s	periodic
WestGrid (Ca)	D0	Simon Fraser	Active	1 Gb/s	sustained
LHC Tier 1	CMS	BNL	Active	< 622 Mb/s	periodic
UltraLight	CMS	Cal Tech, UF	Pending	1-10 Gb/s	sustained
UKlight – B.W.	CD	Manchester	Pending	1-10 Gb/s	periodic
UKlight – D0	D0	Lancaster	Pending	4 Gb/s	sustained
ASnet	CDF	Sinica, Taiwan	Active	2-4 Gb/s	periodic
CMS Tier 2	CMS	Florida	Pending	< 622 Mb/s	sustained
Genome MAP Data	CD	Wisconsin	Pending	<622Mb/s	periodic

If someone has a WAN project that should be on this list, contact demar@fnal.gov

Miscellaneous

- ➤ The Wide Area Working Group (WAWG) provides a technical discussion forum for developing & advancing WAN projects:
 - Weekly Friday (9:00am) meetings in FCC1
 - Remote participation supported via H.323 video conferencing
 - Contact WAWG at wawg@fnal.gov
- \triangleright Local effort support = \sim 1 FTE:
 - − Vyto Grigaliunas {~70%}
 - Andrey Bobyshev {~20%}
 - Steve Fry {~5%}
 - Phil DeMar {~5%}